

9312L119-WES-1446

0046286



ROY F. WESTON, INC.  
LIONVILLE ANALYTICAL LABORATORY  
ANALYTICAL CASE NARRATIVE

Client: WESTINGHOUSE HANFORD  
RFW #: 9312L119

W.O. #: 06168-002-001-9999-00  
Date Received: 12-22-93

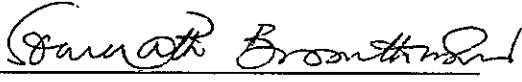
**GC SCAN**

The set of samples consisted of two (2) water samples collected on 12-18-93.

The samples were extracted on 12-27-93 and analyzed by WESTON OP 21-16-8015.2 for Diesel Range Petroleum Hydrocarbons on 12-31-93.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. These samples were extracted outside holding time. A Sample Discrepancy Report (SDR) has been enclosed.
2. All surrogate recoveries were within laboratory control limits.
3. All blank spike recoveries were within laboratory control limits.
4. Matrix spike analyses were not performed due to insufficient sample volume. A Sample Discrepancy Report (SDR) has been enclosed.
5. The multilevel Diesel Fuel standards provided calibration data with a correlation coefficient of at least 0.996.
6. Seven (7) to ten (10) hydrocarbon peaks were used to quantitate Diesel Fuel in standards, samples and spikes.
7. Continuing calibration criteria (15%) were met for all continuing standards analyzed prior to the sample extracts.

  
J. Peter Hershey, Ph.D.  
Laboratory Manager  
Lionville Analytical Laboratory

02.09.94.  
Date



ADDENDUM

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Soumitra Basuthakur Name: Soumitra N. BASUTHAKUR  
Date: 02.09.94 Title: UNIT-LEADER

Roy F. Weston, Inc. - Lionville Laboratory  
DRO ANALYTICAL DATA PACKAGE FOR  
WESTINGHOUSE HANFORD

DATE RECEIVED: 12/22/93

RFW LOT # :9312L119

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B08NV1	001	W	93LE2318	12/18/93	12/27/93	12/31/93
B08NV2	002	W	93LE2318	12/18/93	12/27/93	12/31/93

LAB QC:

BLK	MB1	W	93LE2318	N/A	12/27/93	12/31/93
BLK	MB1 BS	W	93LE2318	N/A	12/27/93	12/31/93
BLK	MB1 BSD	W	93LE2318	N/A	12/27/93	12/31/93

0002

73LCO89

**WESTERN****SAMPLE DISCREPANCY REPORT (SDR)**SDR IN-PROGRESS ROUTIN  
(see other side)

Initiator C Schnell  
 Date 12/27/93  
 Client Westinghouse Hanford  
 RFW Lot # 9312119  
 Samples 001,002

Parameter: QIRO  
 Matrix: Water  
 Prep Batch: \_\_\_\_\_  
 Urgency: ☒ Immediate ☐ Other

Category for Discrepancy:  
☐ Log-In  
☐ LIMS  
☒ Analysis/Sample  
☐ Project Revision  
☐ Other:

**A. Reason for SDR:****A1a.**

Requires Verification By (circle):  
 Log-In or Prep Group

- ☐ Missing Sample/Extract  
☐ Wrong Sample Pulled  
☐ Improper Bottle Type  
☐ Container Broken  
☐ Preservation Wrong  
☐ Received Past Hold  
☐ Insufficient Sample  
☐ Label ID's Illegible

**A2.**

Verified By (circle):  
 Log-In or Prep Group  
 (signature) (date)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**A1b.**

- ☐ Re-Log: Tech Profile Error..Client Changed Request.  
           Sampler Error on C-O-C..Transcription Error..  
           Wrong Test Code, Re-Log As \_\_\_\_\_  
☐ Re-Leach: Metals/Inorg/VOA/BNA/Pest/Herb/\_\_\_\_\_  
☐ Re-Digest: AA/ICP/HG/\_\_\_\_\_  
☐ Re-Extract: BNA/PEST/\_\_\_\_\_  
☐ QC Out: SURR/MS...High/Low/ < 10%/Missing/2X  
☐ QC Out: B/BS/BS/LCS/LCS-D...High/Low  
☒ Hold Time Exceeded: Prep Analysis/Report  
☐ Not Amenable to Analysis  
☐ Other (describe)

Sample received four days <sup>late</sup> after collection.

**B. PM Instructions For**

Disposition (signature/date):

Jorie Edward  
12-30-93

- ☐ Cancel ☐ Add ☐ Subout Analysis  
☐ Place On Hold ☐ Take Off Hold  
☐ Change W.O. # to: \_\_\_\_\_  
☐ MS/MSD on Sample \_\_\_\_\_, if enough sample: ORG/INC  
☐ MS/DUP on Sample \_\_\_\_\_, if enough sample: ORG/INC  
☐ Change Client name to: \_\_\_\_\_  
☐ Wrong Test Code, Re-Log As \_\_\_\_\_  
☒ Include in Narrative

☐ Other, explain:

**C. FINAL ACTION:** a clear description of what was done for resolution,  
when it was done, and by whom it was done

## Action Taken:

- ☐ Revision To Chain-of-Custody Completed  
☐ LIMS Corrections Completed  
☒ Other, explain

Noted in narrative

Action By (name/date):

Forward to Pat Feldman, QA for distribution ---

C Schnell 1/5/94

**D. Distribution of Completed SDR** (include name)

☒ Initiator: C Schnell  
☒ Lab Manager: PETER HERSH  
☒ Project Mgr: J Edwards  
                   Unit Leader: \_\_\_\_\_  
☒ QA (original): K. RYAN  
☒ Log-In: \_\_\_\_\_  
☒ Data Reporting: Som  
                   Billing: S. BRENER

Distributed By:  
 (signature/date)

0008



93EX 131  
SAMPLE DISCREPANCY REPORT (SDR)

SDR IN-PROGRESS ROUTE!  
(see other side)

Initiator Dina Osei-Mensah  
Date 12/29/93  
Client Westinghouse Hanford  
RFW Lot # 9312 L 119  
Samples 001, 002

Parameter: ODRO  
Matrix: water  
Prep Batch: 93LE 2318  
Urgency: ☒ Immediate ☐ Other

Category for Discrepancy:  
☐ Log-In  
☐ LIMS  
☒ Analysis/Sample  
☐ Project Revision  
☐ Other:

A. Reason for SDR:

A1a.

Requires Verification By (circle):  
Log-In or Prep Group

- ☐ Missing Sample/Extract  
☐ Wrong Sample Pulled  
☐ Improper Bottle Type  
☐ Container Broken  
☒ Preservation Wrong  
☐ Received Past Hold  
☒ Insufficient Sample  
☐ Label ID's Illegible

A2.

Verified By (circle):  
Log-In or Prep Group  
(signature) (date)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. PM Instructions For

Disposition (signature/date): J. Edward  
1/3/94

- ☐ Cancel ☐ Add ☐ Subout Analysis  
☐ Place On Hold ☐ Take Off Hold  
☐ Change W.O. # to: \_\_\_\_\_  
☐ MS/MSD on Sample \_\_\_\_\_, if enough sample: ORG/IN  
☐ MS/DUP on Sample \_\_\_\_\_, if enough sample: ORG/IN  
☐ Change Client name to: \_\_\_\_\_  
☐ Wrong Test Code, Re-Log As \_\_\_\_\_  
☒ Include in Narrative

☐ Other, explain:

A1b.

- ☐ Re-Log: Tech Profile Error..Client Changed Request..  
Sampler Error on C-O-C..Transcription Error..  
Wrong Test Code, Re-Log As \_\_\_\_\_  
☐ Re-Leach: Metals/Inorg/VOA/BNA/Pest/Herb/ \_\_\_\_\_  
☐ Re-Digest: AA/ICP/HG/ \_\_\_\_\_  
☐ Re-Extract: BNA/PEST/ \_\_\_\_\_  
☐ QC Out: SURR/MS...High/Low/<10%/Missing/2X  
☐ QC Out: B/BS/BSD/LCS/LCS-D...High/Low  
☐ Hold Time Exceeded: Prep/Analysis/Report  
☐ Not Amenable to Analysis  
☐ Other (describe)

Samples were received preserved with  
H<sub>2</sub>SO<sub>4</sub> - pH 2

Insuff sample volume for matrix QC

Dina O. 12/29/93

C. FINAL ACTION: a clear description of what was done for resolution,  
when it was done, and by whom it was done

Action Taken:

- ☐ Revision To Chain-of-Custody Completed  
☐ LIMS Corrections Completed  
☒ Other, explain

Noted in narrative

Action By (name/date): C. Schnell 1/5/94

Forward to Pat Feldman, QA for distribution ---

D. Distribution of Completed SDR (include name)

- ☒ Initiator: Dina  
☒ Lab Manager: J. PETER HERST  
☒ Project Mgr: Edward  
☒ Unit Leader: C. Schnell  
☒ QA (original): K. RYAN  
☐ Log-In: \_\_\_\_\_  
☐ Data Reporting: \_\_\_\_\_  
☐ Billing: S. BRENER

Distributed By:  
(signature/date)

0009

**WESTON**

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[illegible][illegible]

**Special Instructions:**

Temp = 5.4 SAF# 93380

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

**WESTON Analytics Use Only**

Samples were:

- 1) Shipped ☒ or N
- Hand Delivered ☒ or N
- Airbill # 257101023
- 2) Ambient or Chilled ☒ or N
- 3) Received in Good Condition ☒ or N
- 4) Labels Indicate Properly Preserved ☒ or N
- 5) Received Within Holding Times ☒ or N

COC Tape was:

- 1) Present on Outer Package ☒ or N
- 2) Unbroken on Outer Package ☒ or N
- 3) Present on Sample ☒ or N
- 4) Unbroken on Sample ☒ or N
- COC Record Present Upon Sample Rec'd ☒ or N

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
EMERY	M. Emery	12/21/12	12:45				
	M. Davis	12/21/12	1:43				

Discrepancies Between  
Samples Labels and  
COC Record? Y or N

Westinghouse  
Hanford Company

## CHAIN OF CUSTODY

Custody Form Initiator

Company Contact PH BUTCHER

Project Designation/Sampling Locations RIVERLAND ERA

Ice Chest No. OT-5

Bill of Lading/Airbill No. 2579010637

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks NONE DETECTED

Telephone (509) 376-5045

Collection Date 12-18-93

Field Logbook No. EFL-1111

Offsite Property No. W94-0-0190-4

### Sample Identification

B08NV1

2; 1L; G; WATER; TPH-DIESEL RANGE, TPH->DIESEL RANGE (H2SO4 to pH<2)

TEMP=5.4

[ ] Field Transfer of Custody

Chain of Possession

(Sign and Print Names)

Relinquished By	Date	Time	Received By	Date	Time
<del>Relinquished By K D Lee</del>	<del>12/20/93</del>	<del>10:00</del>			
<del>Relinquished By Emery</del>	<del>12/20/93</del>	<del>10:00</del>			
EMERY	12/22/93	1245	M. Amie	12/22/93	12:45

### Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments: Placed in Bag # 3B by LCS 12/18/93 1445		





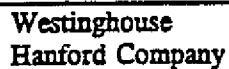
<b>Westinghouse Hanford Company</b>	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator Company Contact <b>PH BUTCHER</b> Project Designation/Sampling Locations <b>RIVERLAND ERA</b> Ice Chest No. <b>OT-5</b> Bill of Lading/Airbill No. <b>2519010637</b> Method of Shipment <b>EMERY</b> Shipped to <b>WESTON</b> Possible Sample Hazards/Remarks <b>NONE DETECTED</b>	
Telephone <b>(509) 376-5045</b> Collection Date <b>12-18-93</b> Field Logbook No. <b>EFL-1111</b> Offsite Property No. <b>W94-0-0190-4</b>	
<b>Sample Identification</b>	

B08NV2  
 2; 1L; G; WATER; TPH-DIESEL RANGE, TPH->DIESEL RANGE (H2SO4 to pH<2)

*Time = 5.4*

[ ] Field Transfer of Custody			Chain of Possession		(Sign and Print Names)	
Relinquished By	Date	Time	Received By	Date	Time	
<i>To: Supervisory Agency</i>	<i>12/20/93</i>	<i>1000</i>				
<i>EMERY</i>	<i>12/22/93</i>	<i>1245</i>	<i>M. Demirel</i>	<i>12/22/93</i>	<i>1245</i>	

Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments: <i>Placed in Ref # 3B by LSS 12/18/93 1445</i>		



## SAMPLE ANALYSIS REQUEST

## PART I: FIELD SECTION

Collector

LC Sweeney

**Date Sampled**

17-15-53

3 Time 1039 hours

### Company Contact

PH BUTCHER

**Telephone**

**(509) 376-5045**

BOL-25150101637  
OSPL-W94-0-650-4

### Field Information

Special Handling and/or Storage

### Possible Sample Hazards

## PART II: LABORATORY SECTION

Received by

**Title**

Date \_\_\_\_\_

### Analysis Required

\*Indicate whether sample is soil, sludge, water, etc.

Use back of page for additional information relative to sample location.

0015

A-6000-406(05/90)

SAMPLE STATUS REPORT FOR E 3928. E-BLANK 6-67-98 TIME: 12/20/93 8:3  
DISPATCHED: 12/15/93 11:39 SAMPLE HAS NOT BEEN SLURPED  
RECEIVED: 12/20/93 8:19

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARG CODE
****	*****	*****	***	***	*****
4271	TOT-ACT	< 5.00000E 01 pci/G	N	Y	VOGEL


END OF REPORT

B08NV2

B08NV1

LCS

12/20/93

<b>FORM OF PAYMENT</b>		<b>932417</b> <b>(84)</b>		<b>EMERY WORLDWIDE</b>		<b>CF Company</b>		<b>SERVICES **</b> UNITED STATES / CANADA <input type="checkbox"/> Same Day (Extra Charge) <input type="checkbox"/> AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> Second Day <input type="checkbox"/> Saturday Delivery INTERNATIONAL Express <input type="checkbox"/> Standard Plus <input type="checkbox"/> Preferred <input type="checkbox"/> Standard <input type="checkbox"/> Business Documents <input type="checkbox"/> Customs Clearance <input type="checkbox"/> Delivery	
Shipper's Account Number <b>850281585</b>		Date: <b>12-20-93</b>		Origin: <b>PSC</b>		Shipment Number: <b>251901063</b>			
To: <b>STINGHOUSE SHIPPING DEPT (509) 376-6665</b> <b>S. DEPARTMENT OF ENERGY C/O</b> <b>STINGHOUSE HANFORD</b> <b>BLDQ 1163</b> <b>255 STEVENS DRIVE</b> <b>RICHLAND WA</b>				To: <b>RF WESTON INC</b> <b>RF WESTON INC</b> <b>266 WELSH POOL ROAD</b> <b>LIONVILLE PA 19341</b>				Tariff Dest: <b>USA</b> Check to Shipper: <b>\$</b>	
Customer's Reference Numbers <b>1232/PB6AF W94-0-019044</b>		<b>99352</b>		Consignee's Account Number: <b>E</b>		FOR INFORMATION OR RATES CALL 1-800 44 EMERY (1-800-443-6379)		Declared Value: <b>\$</b>	
Description: <b>BUTCHER COOLER ID OT-5 TER SAMPLES</b>		Dimensions: <b>1 21 16 16</b>		Total Pieces: <b>1</b>		Total Weight (in Lbs.): <b>36</b>		<b>2519010637</b> 	
Remarks: <b>OVERNIGHT DELIVERY</b> <b>GNATURE SECURITY SERVICE</b> Date: <b>12-20-93</b>		Zip Ship <input type="checkbox"/>		Mark if Emery Packaging is used Urgent Letter <input type="checkbox"/> Urgent Parcel <input type="checkbox"/>		<div style="font-size: 4em; font-weight: bold; opacity: 0.5;">3-PLA</div>			
Free Domestic <input type="checkbox"/>		Third Party Account Number: <b>E</b>		International Customs Value					
International Shipments		Third Party Account Number: <b>E</b>		International Insurance					
e Charge		Total Transportation Charges		Other Charges (Reference at Origin)					

**EMERY WORLDWIDE**



## SIGNATURE AND TALLY RECORD

60029-46 (8/89) Lino USA

DATE: **12-20-93** SHIPMENT NO.: **W94-0-019044**  
 SHIPPER: **STINGHOUSE SHIPPING DEPT (509) 376-6665**  
 REFERENCE NO.: **W94-0-019044**

### SHIPPER NAME AND ADDRESS

**STINGHOUSE SHIPPING DEPT (509) 376-6665**  
**S. DEPARTMENT OF ENERGY C/O**  
**STINGHOUSE HANFORD COMPANY**  
**255 STEVENS DRIVE 1163 BUILDING**  
**PO BOX 1970**  
**RICHLAND WA 99352**

### CONSIGNEE NAME AND ADDRESS

**RF WESTON INC**  
**266 WELSH POOL ROAD**  
**LIONVILLE PA 19341**

Pieces: <b>1</b>	Weight: <b>36 LBS</b>	Description/Marks: <b>COOLER ID: OT-5 WATER SAMPLES</b>	Emery Authorization No.
EACH PERSON HANDLING OR TAKING CUSTODY OF THIS SHIPMENT MUST SIGN AND COMPLETE THE INFORMATION BELOW			
Name of Person/Company	Transship Point/Destination	Signature of Person Accepting Custody	Time/Date
1. <b>SHIPPING DEPT</b>	<b>RICHLAND WA</b>		
2. <b>STINGHOUSE HANFORD CO</b>			
3. <b>H. Peters</b>	<b>PL</b>	<b>H. Peters</b>	<b>12/20/93</b>
4. <b>H. Peters</b>	<b>PL</b>	<b>H. Peters</b>	<b>12/20/93</b>
5. <b>E. Finkler</b>	<b>WESTON</b>	<b>E. Finkler</b>	<b>12/20/93</b>

RFW Batch Number: 9312L119

Client: WESTINGHOUSE HANFORD

Work Order: 06168002001 Page: 1

	Cust ID:	B08NV1	B08NV2	BLK	BLK BS	BLK BSD
Sample	RFW#:	001	002	93LE2318-MB1	93LE2318-MB1	93LE2318-MB1
Information	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	mg/L	mg/L	mg/L	mg/L	mg/L
	p-Terphenyl	95 %	95 %	87 %	101 %	94 %
		fl	fl	fl	fl	fl
Diesel		0.100 U	0.100 U	0.100 U	81 %	91 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.  
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. \*= Outside of EPA CLP QC

0019